

Millenium, 2(29)



ADIÇÃO AO JOGO A DINHEIRO E AOS VIDEOJOGOS NO CONTEXTO UNIVERSITÁRIO: UM ESTUDO DESCRITIVO
GAMBLING AND VIDEO GAME ADDICTION IN THE UNIVERSITY SETTING: A DESCRIPTIVE STUDY
ADICCIÓN AL JUEGO CON DINERO Y VIDEOJUEGOS EN EL ÁMBITO UNIVERSITARIO: ESTUDIO DESCRIPTIVO

Marta Fernández-Conde¹  <https://orcid.org/0000-0002-1171-3116>

Rosa Alonso²  <https://orcid.org/0009-0005-5490-9310>

Ainhoa Molina¹  <https://orcid.org/0000-0003-2626-6627>

Elena González³  <https://orcid.org/0000-0001-7632-1669>

César Vaquero¹  <https://orcid.org/0000-0002-2822-0131>

Diego Plaza¹  <https://orcid.org/0009-0008-1480-9747>

¹ Universidad de Salamanca, Ávila, Espanha

² Centro Salud Piedrahita, Ávila, Espanha

³ Complejo Asistencial Universitario Salamanca, Salamanca, Espanha

Marta Fernández-Conde - martagfc@usal.es | Rosa Alonso - rsancheza@usal.es | Ainhoa Molina – ainhoa.lozano.molina@usal.es |

Elena González - emartingonzalez@usal.es | César Vaquero – cesar.jimenez@usal.es | Diego Plaza – diego.gayo@usal.es



Corresponding Author:

Rosa Alonso

Calle Hornos Caleros
05003 – Ávila - Espanha
rsancheza@usal.es

RECEIVED: 17th, December, 2025

REVIEWED: 29th, January, 2026

ACCEPTED: 09th, March, 2026

PUBLISHED: 26th March, 2026

DOI: <https://doi.org/10.29352/mill0229.44598>

RESUMO

Introdução: O jogo a dinheiro e os videojogos podem associar-se a comportamentos aditivos com repercussões académicas e psicossociais, sobretudo em populações jovens.

Objetivo: Estimar a prevalência de jogo a dinheiro e de atividades relacionadas com videojogos em estudantes universitários, analisar diferenças por sexo e relação com a média académica.

Métodos: Estudo descritivo transversal em estudantes de Enfermagem matriculados no ano letivo de 2023-2024 da Escola Universitária de Enfermagem de Ávila - Universidade de Salamanca. Aplicou-se um questionário online baseado em ESTUDES/EDADES, incluindo Lie/Bet e critérios baseados no DSM-5. Realizaram-se análises descritivas, bivariadas (χ^2 /Fisher) e foram aplicados modelos de regressão logística, apresentando as razões de chances (OR) e os intervalos de confiança (IC) de 95%, considerando significância estatística em $p < 0.05$.

Resultados: Obtiveram-se 161 questionários válidos (taxa de resposta 80.9%). A prevalência de jogo a dinheiro nos últimos 12 meses foi 49,7%, superior nos homens. O jogo online foi mais frequente nos homens e o presencial nas mulheres. O risco de jogo problemático foi 5.6%. No total, 42.2% participou em videojogos/eSports/assistir eSports. Entre os jogadores, a média escolar associou-se negativamente à frequência de consumo de videojogos e à audiência de eSports.

Conclusão: O jogo a dinheiro e os videojogos são frequentes no contexto universitário, com diferenças por sexo e uma proporção reduzida em risco de jogo problemático. São necessários estudos multicêntricos e longitudinais para confirmar as associações com o desempenho académico, o que permitirá a generalização dos resultados.

Palavras-chave: jogo de azar; videojogos; estudantes; desempenho académico; dependência de tecnologia

ABSTRACT

Introduction: Gambling and video gaming may be linked to addictive behaviors with academic and psychosocial consequences in young populations.

Objective: To estimate the prevalence of money gambling and gaming-related activities among university students, assess sex differences and associations with grade point average.

Methods: Descriptive cross-sectional study was conducted with nursing students enrolled in the 2023-24 academic year at the University School of Nursing of Ávila - University of Salamanca. An online questionnaire based on ESTUDES/EDADES was administered, including Lie/Bet and DSM-5-based criteria. Descriptive and bivariate analyses (χ^2 /Fisher) were performed, and logistic regression models were fitted, reporting odds ratios (OR) and 95% confidence intervals (CI), with $p < 0.05$ considered statistically significant.

Results: A total of 161 valid questionnaires were obtained (response rate 80.9%). Past-year money gambling prevalence was 49.7%, higher in men. Online gambling was more frequent in men and land-based gambling in women. Risk of problem gambling was 5.6%. Overall, 42.2% reported involvement in video games/eSports/eSports spectating. Among players, higher frequencies of video game play and eSports viewing were linked to lower academic performance.

Conclusion: Gambling and gaming are common in university students, with clear sex differences and a limited proportion at risk of problem gambling. Multicenter and longitudinal studies are needed to confirm associations with academic performance, which will allow the results to be generalized.

Keywords: gambling; video games; students; academic performance; technology addiction

RESUMEN

Introducción: El juego con dinero y el uso de videojuegos pueden asociarse a conductas adictivas con impacto académico y psicossocial, especialmente en población joven.

Objetivo: Estimar la prevalencia de juego con dinero y videojuegos en estudiantes universitarios, analizar diferencias por sexo y la relación con la nota media académica.

Métodos: Estudio descriptivo transversal en estudiantes del Grado de Enfermería matriculados en el curso académico 2023-24 en la Escuela Universitaria de Enfermería de Ávila, Universidad de Salamanca. Se administró un cuestionario online basado en ESTUDES/EDADES, incluyendo Lie/Bet y criterios DSM-5. Se realizó un análisis descriptivo, bivalente (χ^2 /Fisher), y se aplicaron modelos de regresión logística, reportando OR e IC95, considerando significación estadística $p < 0.05$.

Resultados: Se obtuvo una tasa efectiva de respuesta del 80,9% (n=161). El 49,7% jugó con dinero en los últimos 12 meses, mayor prevalencia en hombres; siendo más frecuente la modalidad online en hombres y la presencial en mujeres. El 5,6% presentó riesgo de juego problemático. El 42,2% participó en videojuegos/eSports/espectador. Entre los jugadores, se asoció negativamente la nota media con la frecuencia de consumo de videojuegos y espectador de eSport.

Conclusión: El juego con dinero y los videojuegos fueron frecuentes en estudiantes de enfermería, con diferencias por sexo y un riesgo limitado de juego problemático. Se requieren estudios multicéntricos y longitudinales para confirmar relación causal con el rendimiento académico.

Palabras clave: juego de azar; videojuegos; estudiantes; rendimiento académico; adicción a la tecnología

DOI: <https://doi.org/10.29352/mill0229.44598>

INTRODUCTION

The field of addictive behaviors has undergone significant changes in recent years. The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) recognizes pathological gambling as a non-substance-related addiction (American Psychiatric Association, 2014). Likewise, the World Health Organization has included gaming disorder in the International Classification of Diseases (11th ed.; ICD-11), highlighting its severity, high prevalence, and impact on public health (World Health Organization, 2020).

The primary aim of this study was to analyze the prevalence of gambling and video game use in a university population. Secondary objectives included examining gender differences, assessing the association between video game use and grade point average (GPA), and comparing the results with the 2025 Report on Behavioral Addictions (IAC) published by the Spanish Ministry of Health (Ministerio de Sanidad [MSAN], 2025).

1. THEORETICAL FRAMEWORK

The prevalence of gambling among university students in Spain ranges from approximately 48% to 65%, of whom 2.4%–3.4% meet criteria for pathological gambling. Intensive video game use and online gambling are common in this population, with higher risk observed among males and students exposed to greater digital availability and social normalization of these behaviors (Barceló-Soler et al., 2025; López-Del-Hoyo et al., 2022).

Risk factors include male sex, older age, lower parental education, exposure to advertising, impulsivity, and motivations related to emotional coping or financial gain (López-Del-Hoyo et al., 2022; Palacios-Ceña et al., 2025). The normalization of gambling and increased digital accessibility contribute to the persistence of these behaviors, whereas problematic gambling is associated with poorer mental health and academic performance (López-Del-Hoyo et al., 2022; Ropovik et al., 2023).

In the university context, the consequences of video game use are mixed: they may interfere with studying and sleep, but can also enhance cognitive abilities, visuomotor coordination, and teamwork when use is moderate and regulated (Alloza Castillo et al., 2021; Naaj & Nachouki, 2021). Therefore, it is important to distinguish levels of use according to their functional impact:

Recreational use: Occasional and controlled participation motivated by entertainment or socialization. Individuals maintain control over time and expenditure, and the activity does not interfere with responsibilities, mental health, or interpersonal relationships (Amoah-Nuamah et al., 2023; Sanscartier et al., 2018).

Intensive use: Characterized by high frequency and duration without loss of control, withdrawal symptoms, or significant functional impairment. Individuals retain the ability to voluntarily limit the activity (Infanti et al., 2023).

Problematic use: Defined by loss of control, excessive prioritization of gaming over important life areas, and persistence despite negative consequences. This pattern is associated with symptoms such as withdrawal, tolerance, interpersonal conflict, and functional impairment (Fraiwan & Almomani, 2025; Limone et al., 2023; Nowak, 2018).

2. METHODS

2.1 Sample

The participants in the study were students of the Nursing Degree at the University School of Nursing of Ávila, affiliated with the University of Salamanca, during the 2023–24 academic year. The questionnaire was sent to the entire enrolled population, without sampling (n=199). A total of 161 valid questionnaires were obtained. Normality of the analyzed data was assumed due to the sample size.

2.2 Data collection instruments

A descriptive cross-sectional study on gambling addiction was conducted.

Data collection was carried out using a questionnaire designed in Google Forms, based on specific questions included in the Survey on Alcohol and Drugs in Spain (ESTUDES) of the Ministry of Health (MSAN, 2020) and in the Survey on Drug Use in Secondary Education in Spain (EDADES) (MSAN, 2022), published in the Report on Behavioral Disorders 2022 of the MSAN, with national representativeness (MSAN, 2022). The questionnaire was administered during academic activity, between October and December 2023, to all enrolled students. The researchers supervised the online completion, carried out using personal devices (computer, mobile phone, or tablet). Only one submission per participant was allowed. The following items were analyzed: (1) possible problem gambling in the population aged 15–64 years (score 1–3 on the DSM-5 scale (American Psychiatric Association, 2014)); (2) possible gambling disorder in the population aged 15–64 years (≥ 4 on DSM-5); (3) possible gambling disorder in students aged 14–18 years (score 1–2 on the Lie/Bet scale (Johnson et al., 1997)); (4) possible video game use disorder (≥ 5 on DSM-5). The results were compared with the IAC 2025 (MSAN, 2025).

DOI: <https://doi.org/10.29352/mill0229.44598>

2.3 Statistical analysis

The data were cleaned in Microsoft Excel 365 (v24.01) and analyzed using IBM SPSS Statistics v.28. Descriptive analysis was performed using frequencies for qualitative variables and measures of central tendency and dispersion for quantitative variables. The bivariate analysis used Pearson’s χ^2 or Fisher’s exact test. To estimate associations, binary logistic regression was applied, reporting OR and 95% CI, as well as the Nagelkerke R^2 coefficient to determine model fit. Statistical significance was set at $p < 0.05$. Given that the imbalance in the distribution by sex is representative of the student population of the center, the use of multivariate binary logistic regression models was prioritized over the application of weighting factors, in order to control the effect of this numerical imbalance and to estimate independent associations. The models were adjusted for age and sex as covariates.

3. RESULTS

3.1 Descriptive analysis

The effective response rate was 80.9% (n=161). The distribution by sex was 83.2% (n=134) women and 16.8% (n=27) men. The mean age was 23.43 years (SD = 6.93), with a range between 19 and 54 years. The distribution showed positive skewness, with a median age of 22 years, and 68.9% of the sample (n=111) was below this age. Regarding sociodemographic variables, 96.9% (n=156) had Spanish nationality, and 68.9% (n=111) came from an urban environment. The highest response rate was obtained in the second academic year, with 29.8% of the total participants. A total of 88.2% (n=142) reported a family economic situation similar to the average.

Regarding academic results, 62.1% (n=100) reported a “very good” GPA in the degree.

Concerning the age of onset of gambling, 44.9% (n=30) reported “at 18 years”, with a range from 8 to 30 years.

3.2 Gambling

The prevalence of gambling in the last 12 months was 49.7% (n=80). In the distribution by sex, 70.4% (n=19) of men and 45.5% (n=61) of women reported having gambled in the last year (Pearson $\chi^2=5.550$; $p=0.018$). In the binary logistic regression model adjusted for age and sex, and considering as outcome having gambled in the last 12 months, male sex was independently associated with a significantly higher probability of gambling (OR=4.72; 95% CI: 1.96–11.24; $p < 0.001$). Age was not significant in the model ($p=0.165$).

Regarding the modality of gambling, differences by sex were observed in the whole sample, with online gambling being more frequent in men than in women (18.5% vs 2.2%; Fisher, $p=0.004$). However, no differences by sex were observed in in-person gambling (40.7% vs 40.3%; $\chi^2=0.002$; $p=0.966$) or in participation in both modalities (11.1% vs 3.0%; Fisher, $p=0.093$). The multivariate regression model adjusted for age confirmed that, for online gambling, male sex was a strong predictor of risk (OR=12.35; 95% CI: 3.15–47.62; $p < 0.001$). Among students who had gambled in the last year (n=80), differences by sex were observed in the modality. Online gambling was more frequent in men than in women (26.3% vs 4.9%; Fisher, $p=0.016$), while in-person gambling showed the opposite pattern (88.5% women vs 57.9% men; Fisher, $p=0.006$). No significant differences were observed in participation in both modalities (15.8% vs 6.6%; Fisher, $p=0.348$).

The type of gambling in the last 12 months was explored through a multiple-response question that included different modalities (lotteries, instant lotteries, pools, sports betting, horse racing, slot machines, cards, bingo, video games, eSports, casinos, and gambling venues). A different pattern by sex was observed: among men, video games were most frequent, followed by pools and sports betting, while among women, bingo, lotteries, and instant lotteries predominated (Figure 1).



Figure 1 - Frequency distribution of types of gambling by sex

DOI: <https://doi.org/10.29352/mill0229.44598>

For the bivariate analysis of the relationship between types of gambling and sex, participants were considered as gamblers if they engaged in either online or in-person gambling. Thus, Fisher’s exact test showed significant differences in their distribution between male and female gamblers in the following types: football pools ($p<0.001$), sports betting ($p<0.001$), slot machines ($p<0.001$), cards ($p=0.016$), video games ($p=0.004$), eSports ($p=0.034$), and gambling venues ($p=0.034$). Regarding possible problem gambling according to the Lie/Bet scale, 5.59% of the sample showed risk (9% in men and 4.4% in women).

3.3 Video games, eSports, eSports spectatorship

Given its relationship with gambling, video game addiction was also studied in the previously described population using the ESTUDES questionnaire (Ministry of Health, 2020), which analyzed video game use and eSports, as well as participation as an eSports spectator.

Overall, 42.2% of the students ($n=68$) participated in one or more of the analyzed activities (video games, eSports, or eSports spectatorship) during the last year. The most frequent modality was video games (37.9%), followed by participation as an eSports spectator (13.0%) and eSports (9.3%).

The frequency of use was generally moderate, with practice of less than 4 days per week in most cases (Table 1). Likewise, daily time was generally less than 2 hours, both in video games and in eSports (Table 2).

Table 1 - Frequency of participation in video games, eSports, and eSports spectatorship.

	None	1-3 days/year	1-3 days/month	1-4 days/week	5-7 days/week
Video games	10,3%	23,5%	30,9%	25,0%	10,3%
eSports	77,9%	2,9%	7,4%	5,9%	5,9%
eSports spectatorship	69,1%	8,8%	16,2%	5,9%	0

Table 2 - Categorization of daily time spent on video games, eSports, and eSports spectatorship

	None	< 2 h/day	2-5 h/day	6-8 h/day	> 8 h/day
Video games	27,9% (19)	60,3% (41)	8,8% (6)	1,5% (1)	1,5% (1)
eSports	76,5% (52)	16,2% (11)	4,4% (3)	2,9% (2)	0
eSports spectatorship	76,5% (52)	20,6% (14)	2,9% (2)	0	0

The prevalence of situations indicative of risk behaviors related to video game use was, in general, low (Table 3). The most frequent response was playing to feel better, reported by 17.4% of the participants, followed by continuing to play despite negative consequences (8.1%) and frequently thinking about video games (6.2%).

Table 3 - Prevalence of risk situations of addictive behaviors related to video games in the studied population.

Risk situations of addictive behaviors	Absolute frequency	%
Frequently thinking about video games	10	6.2
Feeling irritable when not playing	8	5
Needing more time to play video games	2	1.2
Trying to spend less time playing video games	9	5.6
Losing interest in other activities	8	5
Continuing to play despite negative consequences	13	8.1
Lying about playing	7	4.3
Playing to feel better	28	17.4
Losing friendships due to playing	2	1.2
Need to bet more money	9	5.6
Lying about how much money is spent	3	1.9

According to DSM-5 criteria, 24.2% of the students presented at least one indicator of risk of problem gaming, while only 1.8% met ≥ 5 criteria.

In the analysis using binary logistic regression, adjusted for age and sex, and considering as outcome the presence of ≥ 1 DSM-5 criteria, an independent association of male sex with a higher risk of possible problem gaming was found ($OR=12.82$; 95% CI: 4.88–33.33; $p<0.001$), while age did not show a significant association ($p=0.717$). The model showed a moderate explanatory capacity (Nagelkerke $R^2=0.298$). Neither place of residence nor average academic grade improved the model fit or showed a significant association.

On the other hand, when considering as outcome the cut-off of ≥ 5 DSM-5 criteria (gaming disorder), the model was not feasible due to the low prevalence of the event and the exclusive concentration of cases in males, which prevented obtaining stable estimates.

DOI: <https://doi.org/10.29352/mill0229.44598>

Within the subgroup of participants, 73.5% (n=50) were aged 22 years or younger and 61.8% (n=42) lived in an urban environment. In addition, 79.4% (n=54) reported a GPA in the degree $\geq 7/10$ points. Regarding economic spending on video games to improve position, character, or accessories, 8.1% of the students reported spending between €1 and €50 in the last year, and 1.2% reported spending more than €100, while the rest reported no spending on video games in the last 12 months.

Bivariate analyses within this subgroup showed differences by sex in the frequency of participation in video games ($\chi^2=9.868$; $p=0.043$), eSports ($\chi^2=15.505$; $p=0.004$), and as an eSports spectator ($\chi^2=9.498$; $p=0.023$). Descriptively, weekly participation in video games was more frequent in women than in men (39.0% vs 11.1%), while weekly participation in eSports was more frequent in men (22.2% vs 10.2%), as well as being an eSports spectator (55.6% vs 28.8%).

Likewise, among players, associations were observed between the frequency of participation in video games and the average academic grade ($\chi^2=23.913$; $p=0.021$), and between the frequency as an eSports spectator and the GPA ($\chi^2=18.459$; $p=0.030$), while no association was found for eSports participation ($\chi^2=11.480$; $p=0.488$).

In a strictly descriptive way, the frequency of participation in video games showed a pattern compatible with lower academic performance at the high end: excellent grades were concentrated in low frequencies of use, while in the categories of higher weekly frequency, the grades “good” and “very good” predominated. In contrast, no differences in grades were observed according to the frequency of participation in eSports.

Regarding participation as an eSports spectator, excellent grades were only observed in those who did not participate, suggesting an association with lower performance at the highest levels. Given the cross-sectional nature of the study and some low counts, these findings should be interpreted with caution.

4. DISCUSSION

In accordance with the objectives, the results are discussed according to the studied items to facilitate their understanding.

4.1. Gambling with money

The age of onset in the sample (18 years) was lower than the national average of 24–27 years (IAC, 2025), which can be explained by the median age of the participants (22 years). However, this onset is later than in adolescents (14.6 years), suggesting that the university profile delays the start compared to the general young population, where the risk is higher.

The prevalence of gambling with money in the last year was 49%, in line with the lower range reported in university students in Spain (48–65%) (Barceló-Soler et al., 2025; López-Del-hoyo et al., 2022), with higher prevalence in men. This reproduces the sex gradient described in the IAC and in other national and regional studies (García Rabadán et al., 2023; Ministry of Health, 2025). In our study, men had approximately 4.7 times higher odds of having gambled with money in the last 12 months than women, keeping age constant. This is similar to the findings of García Rabadán et al., who reported clear differences by sex in prevalence: men showed higher participation and risk, while women gambled less and focused on modalities perceived as “traditional” or lower risk (García Rabadán et al., 2023).

Regarding gambling modalities, male students showed a clear preference for online gambling compared to women, higher than that reported in the IAC (18.5% men / 2.2% women vs. IAC 6.9% men / 2.3% women). There were no differences between sexes in in-person or mixed gambling (40.7% men / 40.3% women vs. IAC 51% men / 56% women). Slightly lower values than the IAC were observed in this aspect. The data from our students are consistent with national values, although with a slight increase in male preference for online gambling (Ministry of Health, 2025).

Among those who gambled in the last year, women showed a greater preference for in-person gambling (88% vs. 57%), while men more frequently used online gambling (26% vs. 5%), with no differences in the combined modality. This pattern is consistent with studies that describe in-person gambling as an activity with a stronger social component, especially in women, compared to a more intensive use of online platforms in men. This is reinforced by higher male participation in sports betting and pools, and by the expansion of offers aimed at young people.

The type of gambling followed the national trend, with predominance of lotteries and instant games, although with lower prevalence than in the general population according to MSAN. Bingo showed a relatively high proportion, possibly associated with university social or charity events, while pools showed lower use. Overall, the university context combines conventional forms of gambling (lotteries, bingo) with emerging modalities linked to sports betting and online platforms.

Significant differences by sex in pools, sports betting, slot machines, cards, video games, e-sports, and gambling venues suggest a clear segmentation of gambling practices (García Rabadán et al., 2023). This finding supports the need to design gender-sensitive preventive strategies, addressing specifically sports betting and online gambling in men, and certain in-person modalities (such as bingo and lotteries) in women (Vázquez-Fernández & Barrera-Algarín, 2020).

Possible problem gambling reached 5.6% in the study population, with predominance in men, compared to 3.2% estimated at the national level (MSAN, 2025). This should be considered in future studies with larger university populations to confirm this hypothesis. This is a relevant finding, even if the percentage is not high, in a university context, due to the potential impact on mental health, family relationships, and economic consequences, as well as the association described between gambling disorder,

DOI: <https://doi.org/10.29352/mill0229.44598>

depression, suicidal ideation, and premature death (Karlsson & Håkansson, 2018). Early identification of these cases and the availability of specific psychological support resources in the university setting are key elements of intervention.

4.2. Video games

Regarding video games and related activities (e-sports and spectators), 42% of the students participated in some modality, with a predominance of traditional video games, significantly preferred by women (39% vs. 11%). This result differs from the IAC, where male use predominates, and should be interpreted with caution due to the possible bias of a mainly female sample. It would be of interest to confirm these results with multicenter studies with study populations with a more homogeneous distribution of sex. The prevalence and frequency of use were lower than those described in the adolescent population, in line with evidence showing a reduction in gaming time and spending with age (MSAN, 2025). Most players spent less than 2 hours per day, and only a minority exceeded 5 hours, which indicates mostly moderate use. The frequency, lower than 4 days per week, suggests a recreational pattern, far from intensive or problematic use.

Economic spending on video games to improve position, accessories, or image was also limited and clearly lower than that reported in the IAC, which may be related to a greater capacity for self-regulation and different economic priorities in the university stage (MSAN, 2025). Even so, the fact that there is a subgroup that makes significant spending suggests the convenience of including this aspect in digital health education strategies.

The analysis of possible problem gaming and gaming disorder showed a significant association between male sex and possible problem gaming. Further analysis shows that the IAC (MSAN, 2025b) assessed gaming disorder (≥ 5 DSM-5 criteria) and did not show data on possible problem gaming (≥ 1 DSM-5 criteria). Our population showed 24% of possible problem gaming, associated with male sex and not with age (not evaluated in the IAC). These results are consistent with the IAC, which identified male sex as a risk factor for gaming addiction.

Among players, high frequencies of video game use and being an e-sports spectator were significantly (non-causally) associated with academic performance. Similarly, students with excellent GPA were found among non-spectators of e-sports or those with low frequencies of video game use. This finding should be interpreted with caution due to the limitations of the present study design, and there may be uncontrolled variables. Although this finding was not assessed in the IAC, it is consistent with the existing literature, which describes a negative association between gaming time and academic results (Adžić et al., 2023; Gómez-Gonzalvo et al., 2020; Javorcik & Durian, 2022). There are also studies that have found neutral effects or even potential benefits, linked to the development of cognitive, social, and time management skills in contexts of moderate use (Alloza Castillo et al., 2021; Naaj & Nachouki, 2021). In this context, the data from the present study could place video game use at an intermediate point, compatible with moderate, structured use and possibly more oriented to responsible leisure, far from intensive and problematic use (where video game use stops being harmless when it interferes with study time).

This relationship between frequency of use and performance should be interpreted with caution, as variables such as time of use (weekends or exams), type of game (competitive, casual, cooperative), or other leisure activities that could influence were not considered. Future studies should include variables related to schedules, contexts, and types of games to determine when video games affect academic performance positively, negatively, or neutrally.

Regarding possible gaming disorder, the observed prevalence (1.86%) was much lower than that described in the IAC (5.2%) and was concentrated in men, which is consistent with the greater male vulnerability reported in the literature (8.6% vs. 1.8%) (American Psychiatric Association, 2014; MSAN, 2025). This low proportion may reflect both an effect of the sample profile (Nursing students, mostly female) and a lower exposure to intensive video game use patterns compared to other more technological degrees.

4.3. Limitations

Among the main limitations are that this is a single-center study, with self-administered questionnaires (possible social desirability bias), a moderate sample size, and a marked imbalance by sex (in line with the usual distribution in Nursing studies), which limits comparisons and precision in men. To reduce this effect, stratified analyses by sex and multivariate models adjusted by sex and age were performed; however, the results should be interpreted with caution and confirmed with more balanced samples.

Even so, the results support the need to strengthen the prevention of gambling with money and risk behaviors related to video games in the university setting, integrating gender differences and paying attention to the possible impact on academic performance. Multicenter, longitudinal, and larger studies are needed to clarify these relationships and to evaluate specific interventions.

4.4. Future implications

The results reinforce the need for preventive interventions in the university setting, incorporating a gender-based approach and promoting early detection of risk behaviors related to different gaming patterns.

DOI: <https://doi.org/10.29352/mill0229.44598>

Early identification and the availability of psychological support resources in the university setting are key elements of intervention, including in training programs preventive strategies of digital health education, promoting responsible use of video games and self-regulation of digital leisure time in the university community.

It would be advisable to include teacher training for the early detection of possible risk signals, implementing screening protocols for gambling and problematic video game use, as well as awareness campaigns.

Regarding future research, it is recommended to carry out prospective multicenter studies that allow establishing causal relationships, including variables such as time use patterns, type of video games, social context, or the presence of other psychological risk factors, with samples with a more homogeneous distribution of variables such as sex or family background and different academic degrees, in order to achieve greater external validity..

CONCLUSION

In the analyzed sample, the prevalence of gambling with money in the last 12 months was 49.7%, and participation in video games/eSports or being an eSports spectator was 42.2%, being a frequent behavior in the university student community.

A lower probability of problem gambling was associated in women compared to men. Online gambling was more frequent in men, while no differences by sex were observed in in-person gambling.

The frequency of participation in video games was associated with lower academic performance at the high end, while no differences were observed according to the frequency of participation in eSports.

The findings reproduce the general pattern of IAC 2025 (gradient by sex and preference for modality), although they differ in magnitude. In the analyzed population, a slightly worse profile is observed in gambling with money (higher risk of problem gambling in men), and a more favorable profile in video games (lower prevalence and frequency), probably due to age profile and the university environment.

ACKNOWLEDGEMENTS

We would like to express our sincere thanks to Luis Enrique Blanco Montagut, professor at the University School of Nursing of Ávila, for his collaboration in the statistical analysis, as well as to our students for their participation in the study..

AUTHORS' CONTRIBUTION

Conceptualization, M.F.C. and R.A.; data curation, C.V., R.A. and E.G.; formal analysis, C.V. and R.A.; investigation, M.F.C., R.A. and C.V., methodology, A.M., M.F.C. and D.P.; Project administration, A.M., E.G. and D.P.; software, D.P.; writing – original draft, A.M., E.G. and D.P.; writing – review & editing, M.F.C., R.A. and C.V.

CONFLICT OF INTERESTS

The authors declare no conflict of interests.

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